

AMSAT News Service Weekly Bulletins

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AMSAT NEWS SERVICE

ANS-338

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on <http://www.amsat.org> publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to: [ans-editor \[at\] amsat.org](mailto:ans-editor@amsat.org)

You can sign up for free e-mail delivery of the AMSAT News Service Bulletins via the ANS List; to join this list see:
<https://mailman.amsat.org/postorius/lists/ans.amsat.org/>

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ANS-338 AMSAT News Service Weekly Bulletins

To: All RADIO AMATEURS

From: Radio Amateur Satellite Corporation

712 H Street NE, Suite 1653

Washington, DC 20002

DATE 2022 December 4

GreenCube is now designated Italy-OSCAR 117 (IO-117)

GreenCube Designated Italy-OSCAR 117 (IO-117)

On July 13, 2022, the GreenCube satellite was launched on a Vega-C launch vehicle from the Centre Spatial Guyanais in Kourou, French Guiana. The satellite project is managed by the S5Lab research team at Sapienza University of Rome, and involves ENEA (the Italian National Agency for New Technologies, Energy and Sustainable Economic Development) and University of Naples. The satellite carries environmental and thruster payloads and as well as a 70cm digipeater for amateur radio use.

At the request of the GreenCube teams, AMSAT hereby designates the satellite as Italy-OSCAR 117 (IO-117). We congratulate all the involved teams, thank them for their contribution to the amateur satellite community, and wish them continued success on this and future projects.

[ANS thanks Drew Glasbrenner, K04MA, OSCAR Number Administrator, for the above information]

The IO-117 (GreenCube) Club continues to grow

Because of the increasing interest and the quick appearance of instructional material on making digipeated contacts through IO-117, the "GreenCube User Club" has rapidly grown to more than 300 as reported by Doug Papay, K8DP. Several individuals have blogs describing their operational set up that enables them to take advantage of the great DXCC and VUCC opportunity:

Burt DeMarcq, FG80J, offers some nicely detailed instructions and good advice on his blog at: <https://bit.ly/3FjqM1f>.

Fabio Roccatagliata, F5VKV, writes on the AMSAT-BB mailing group that the UZ7H0 Soundmodem is very useful for IO-117 but one must download <http://uz7.ho.ua/greentnc.zip> for success as the tone spacing is shifted from those normal for APRS. He continues: "Use the ssb modem, 1600 main frequency in the spectrum. (Put the) Radio in usb, agc off if possible (or fast), no noise blanker/reduction. You should receive the packet when the signal is within the bandwidth bar you see in the sound modem spectrum. Adapt the DCD threshold accordingly, usually by the half. In the green cube GUI window you should see the decoded packets, in the sound modem the data." Editor Note: The link to the zipped file is listed directly because it does not yet appear on Andrey Kopanchuk's website).

Joe Pereira, VK5EI, suggested on the AMSAT-BB mailing group that the summary by Tom Van den Bon, ZR6TG, is particularly helpful for newcomers. It may be found in a blog post on Tom's website: <https://bit.ly/3Uqpm9B>.

Doug Papay sent a Friday update (which is growing rapidly) on the number and DXCC distribution of contacts made on the bird:

As of 1400Z 2/Dec/2022 there have been 303 stations active on IO-117 since 31/Oct/2022. Congratulations to ZL3TKZ for contact #300!

There have been 154 stations heard in the last 24 hours. There have been 194 unique grid squares and 51 DXCC entities activated. Here is the DXCC list including number of stations heard from each country:

United States of America	87
Italy	45
Japan	29
Spain	25
Federal Republic of Germany	12
Australia	10
England	7
Argentina	6
Canada	6
Brazil	5
France	5
China	4
Mexico	4
Netherlands	3
New Zealand	3
South Africa	3
Switzerland	3
United Arab Emirates	3
Azores	2
Bulgaria	2
Finland	2
Indonesia	2

Northern Ireland	2
Poland	2
Puerto Rico	2
Scotland	2
Sweden	2
Venezuela	2
Alaska	1
Belgium	1
Curacao	1
Czech Republic	1
Denmark	1
Ecuador	1
Estonia	1
Georgia	1
Guadeloupe	1
India	1
Ireland	1
Isle of Man	1
Israel	1
Luxemburg	1
Mauritius	1
Philippines	1
Portugal	1
Romania	1
Russia	1
Slovenia	1
Sudan	1
Uruguay	1
Wales	1

[ANS thanks Doug Papay, K8DP and the listed blog and email authors for the above information.]

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The 2022 AMSAT President's Club coins have arrived!

To commemorate the 50th anniversary of its launch on
October 15, 1972, this year's coin features
an image of AMSAT-OSCAR 6.

Join the AMSAT President's Club today and help
Keep Amateur Radio in Space!

<https://www.amsat.org/join-the-amsat-presidents-club/>

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Release Candidate WSJT-X 2.6.0-rc5 now available

From: Joe Taylor <jo...(a)pr...> - 2022-11-29 16:16:47

Dear WSJT-X Users,

We are pleased to announce that Release Candidate WSJT-X 2.6.0-rc5 is ready for download by beta testers. The list of changes since Release Candidate 4 is extensive. Be sure to read the Release Notes:
https://physics.princeton.edu/pulsar/kljt/Release_Notes.txt

Links for downloading WSJT-X 2.6.0-rc5 can be found on the WSJT-X Home Page, <https://physics.princeton.edu/pulsar/kljt/wsjsx.html> Scroll down to find "Candidate release: WSJT-X 2.6.0-rc5".

Installation files for Raspberry Pi are not yet available, but will be posted as soon as possible.

We hope you will enjoy using this beta release of WSJT-X 2.6.0. As a beta tester you should report on your experiences using one of the relevant WSJT

forums. Bugs should be reported by following instructions found here in the User Guide:
https://www.physics.princeton.edu/pulsar/K1JT/wsjsx-doc/wsjsx-main-2.6.0-rc5.html#_bug_reports

WSJT-X and MAP65 are licensed under the terms of Version 3 of the GNU General Public License (GPLv3). Development of this software is a cooperative project to which many amateur radio operators have contributed. If you use our code, please have the courtesy to let us know about it. If you find bugs or make improvements to the code, please report them to us in a timely fashion. Additional licensing details can be found here:
<https://physics.princeton.edu/pulsar/k1jt/devel.html>

73 from the WSJT Core Development Team
Joe, K1JT; Steve, K9AN; Nico, IV3NWV; Uwe, DG2YCB;

[ANS thanks Joe Taylor K1JT, and the WSJT-X Development Team for the above information.]

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Need new satellite antennas? Purchase Arrows, Alaskan Arrows,
and M2 LEO-Packs from the AMSAT Store. When you purchase through
AMSAT, a portion of the proceeds goes towards
Keeping Amateur Radio in Space.
<https://amsat.org/product-category/hardware/>

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Dhruva Space- Thybolt Mission, Amateur Radio Payload Information

Dhruva Space launched the Thybolt Mission On 26 November, 2022, at 11:56 am, onboard ISRO PSLV-C54. The Thybolt Mission consists of two 0.5U nano satellites. These nanosatellites are built on the 0.5U P-DoT satellite platform which is designed, built and tested by Dhruva Space for use in the amateur communications, disaster management, and low bit-rate applications of STEM and strategic importance. The qualification of this 0.5U platform with its sub-systems will enable many more amateurs across India to learn, build, launch and operate experiments on amateur satellite missions.

Information regarding the system and the the data modes they use may be found at the Dhruva Space website: <https://bit.ly/3FgYNz8> While it is not clear whether the satellites will be active throughout their entire orbital pathThe website states: "Please note that S&F Messaging will be available after conclusion of launch & early phase and commissioning operations tentatively on 20 December, 2022."

Nico Janssen, PA0DL0 writes on the AMSAT-BB list:
"Doppler measurements show that Thybolt 1 and 2 are the objects 54363 and 54364. Current separation: 1 s, so it is not yet possible to determine which is which.
CW beacon frequencies: Thybolt 1: 435.35447 MHz and Thybolt 2: 435.3522 MHz.

Nothing received on the telemetry frequency 436.175 MHz, but that downlink is probably only active when in range of India."

[ANS thanks Dhruva Space and Nico Janssen, PA0DL0 for the above information.]

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Want to fly the colors on your own grid expedition?
Get your AMSAT car flag and other neat stuff
from our Zazzle store!

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Amateurs and others around the world may listen in on contacts between amateurs operating in schools and allowing students to interact with astronauts and cosmonauts aboard the International Space Station. The downlink frequency on which to listen is 145.800 MHz worldwide.

[School TBD], Aznakayevo, Republic of Tatarstan, Russia, direct via TBD. The ISS callsign is presently scheduled to be RS0ISS. The downlink frequency is presently scheduled to be 145.800 MHz. The scheduled crewmember is Dimitri Petelin. Contact is go for Sun 2022-12-04 11:20 UTC.

British School in the Netherlands (Junior School Leidschenveen), The Hague, The Netherlands, direct via PE1RXJ. The ISS callsign is presently scheduled to be TBD. The downlink frequency is presently scheduled to be 145.800 MHz. The scheduled crewmember is Josh Cassada KI5CRH. Contact is go for: Thu 2022-12-08 11:09:54 UTC 36 deg.

Stella Maris College, Gzira, Malta, direct via 9H1MRL. The ISS callsign is presently scheduled to be 0R4ISS. The downlink frequency is presently scheduled to be 145.800 MHz. The scheduled crewmember is Koichi Wakata KI5TMN. Contact is go for: Sat 2022-12-10 07:55:55 UTC 55 deg.

[School TBD], Republic of Mordovia, Russia, direct via TBD. The ISS callsign is presently scheduled to be RS0ISS. The downlink frequency is presently scheduled to be 145.800 MHz. The scheduled crewmember is Sergey Prokopye. Contact is go for Sat 2022-12-10 11:10 UTC.

The crossband repeater continues to be active. If any crewmember is so inclined, all they have to do is pick up the microphone, raise the volume up, and talk on the crossband repeater. So give a listen, you just never know.

The latest information on the operation mode can be found at <https://www.ariss.org/current-status-of-iss-stations.html>

The latest list of frequencies in use can be found at <https://www.ariss.org/contact-the-iss.html>

[ANS thanks Charlie Sufana, AJ9N, one of the ARISS operation team mentors and NASA News for the above information]

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AMSAT, along with our ARISS partners, is developing an Amateur Radio package, including two-way communication capability, to be carried on-board Gateway in lunar orbit.

Support AMSAT's projects today at <https://www.amsat.org/donate/>

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Upcoming Satellite Operations

Quick Hits:

N5UC is heading to Hawaii!: BL11 potential schedule: RS-44 Dec 10 2155z Dec 11 2215z Dec 12 0201z, 2237z Dec 13 0227z, Greencube Dec 10 ~1030z, 1425z Dec 11 1232z Dec 12 1030z, 1503z

Major Roves:
None listed currently.

[ANS thanks Paul Overn, KE0PBR, AMSAT rover page manager and AMSAT for the above information]

Changes to AMSAT-NA TLE Distribution for December 4, 2022

On November 28, 2022, at the request of the GreenCube satellite teams, AMSAT has designated the GreenCube satellite as Italy-OSCAR 117 (IO-117). See AMSAT News Service Bulletin 332.01 dated November 28, 2022 for details. The GreenCube satellite designation in the AMSAT TLE distribution is now as follows:

IO-117 NORAD Cat ID 53106

[ANS thanks Drew Glasbrenner, K04MA, OSCAR Number Administrator and Ray Hoad, WA5QGD, AMSAT Orbital Elements Manager, for the above information]

Hamfests, Conventions, Maker Faires, and Other Events

AMSAT Ambassadors provide presentations, demonstrate communicating through amateur satellites, and host information tables at club meetings, hamfests, conventions, maker faires, and other events.

Dont forget to check in to the AMSAT-Twitter Meetup Net on DMR BrandMeister Talkgroup #98006 | D-STAR Reflector REFSAT | YSF Reflector #11689 | Wednesday Nights @ 21:00 CST.

AMSAT Ambassador Clint Bradford K6LCS has a few satellite presentations scheduled:

- The PAPA System in Southern California
- Greenville, North Carolina
- Ontario, Canada
- Thames Valley, England

Think a 90-minute lively, informative, and fun "How to Work the Easy Satellites" Zoom presentation would be appropriate for your convention or club? Always included are overviews of the ARRL, AMSAT, and ARISS. And pre-presentation questions are welcome.

Send an email or call!

Clint Bradford K6LCS

AMSAT Ambassador; ARRL instructor, Affiliated Club Coordinator

<http://www.work-sat.com>

909-999-SATS (7287)

[ANS thanks Clint Bradford, K6LCS, for the above information]

Satellite Shorts From All Over

+ A new AMSAT distance record has been claimed on F0-29. KE9AJ in DM79IQ48UR worked EB1A0 in IN52PE28F at a distance of 7,642 km on 23-Nov-2022 at 20:46 UTC, edging out the previous record held by KG5CCI and F4DXV by 8 km. See <https://www.amsat.org/satellite-distance-records/> for all records. [ANS thanks Paul Stoetzer, N8HM, AMSAT Executive Vice President & Ambassador for the above information.]

+ Artemis I's launch tower and deluge systems performed as designed. The tower sustained some minor damage, particularly to the elevator (blew the doors off), which will be repaired before the next launch. [ANS thanks The Orbital Index for the above information.]

+ OMOTENASHI indeed was unable to be commanded to perform a landing burn. Its operators hope that it has a stable spin axis and that enough sunlight will reach it in the spring to establish comms and undertake secondary mission objectives. [ANS thanks The Orbital Index for the above information.]

+ Eutelsat Communications (Euronext Paris: ETL) (Paris:ETL) has selected Thales Alenia Space (Thales 67 % and Leonardo 33 %) to build a next-generation highly flexible, software-defined satellite (SDS). The Flexsat (for flexible satellite) will be based on Thales Alenia Space's cutting-edge 'Space Inspire' (INSTant SPace In-orbit REconfiguration) product line, enabling seamless reconfiguration and instant in-orbit adjustment to offer an optimum level of customer service, maximising the effective use of the satellite resources. [ANS thanks SpaceDaily.com for the above information.]

Join AMSAT today at <https://launch.amsat.org/>

In addition to regular membership, AMSAT offers membership to:

- * Societies (a recognized group, clubs or organization).
- * Primary and secondary school students are eligible for membership at one-half the standard yearly rate.
- * Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status.
- * Memberships are available for annual and lifetime terms.

Contact info [at] amsat.org for additional membership information.

73 and remember to help Keep Amateur Radio in Space!

This week's ANS Editor, Jack Spitznagel, KD4IZ
kd4iz at arrl dot org